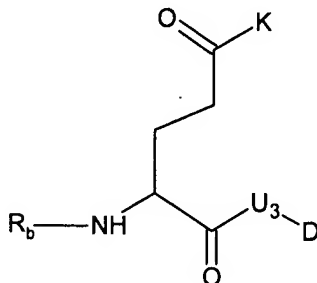


# AMENDMENTS TO THE CLAIMS

What is claimed is:

1. (Currently Amended) A compound of Formula (I), or a pharmaceutically acceptable salt thereof,



(I)

wherein:

$\text{R}_b$  is a hydrogen or a lower alkyl group;

D is a hydrogen,  $\text{V}_3$  or K;

$\text{U}_3$  is oxygen;

K is  $-(\text{W}_3)_a - \text{E}_b - (\text{C}(\text{R}_e)(\text{R}_f))_{p1} - \text{E}_c - (\text{C}(\text{R}_e)(\text{R}_f))_x - (\text{W}_3)_d - (\text{C}(\text{R}_e)(\text{R}_f))_y - (\text{W}_3)_i - \text{E}_j - (\text{W}_3)_g - (\text{C}(\text{R}_e)(\text{R}_f))_z - \text{U}_3 - \text{V}_3$ ;

$\text{V}_3$  is a hydrogen or  $-\text{NO}_2$ ;

a, b, c, d, g, i and j are each independently an integer from 0 to 3;

$p_1$ , x, y and z are each independently an integer from 0 to 10;

$\text{W}_3$  at each occurrence is independently  $-\text{C}(\text{O})-$ ,  $-\text{C}(\text{S})-$ ,  $-\text{T}_3-$ ,  $-(\text{C}(\text{R}_e)(\text{R}_f))_h-$ , an alkyl group, or  $-(\text{CH}_2\text{CH}_2\text{O})_{q1}-$ ;

E at each occurrence is independently  $-\text{T}_3-$ , an alkyl group, an aryl group,  $-(\text{C}(\text{R}_e)(\text{R}_f))_h-$ , or  $-(\text{CH}_2\text{CH}_2\text{O})_{q1}-$ ;

$\text{T}_3$  at each occurrence is independently a covalent bond, a carbonyl, an oxygen, or  $-\text{N}(\text{R}_a)\text{R}_i$ ;

h is an integer form 1 to 10;

$q_1$  is an integer from 1 to 5;

$\text{R}_e$  and  $\text{R}_f$  are each independently a hydrogen, an alkyl, a cycloalkoxy  $-\text{R}_{54}\text{O}-$ , a halogen, a hydroxyl  $-\text{OH}$ , an hydroxyalkyl, an alkoxyalkyl, an arylheterocyclic ring, an alkylaryl, an

alkylcycloalkyl, an alkylheterocyclic ring, a cycloalkylalkyl, ~~a cycloalkylthio~~  $R_{54}S-$ , an arylalkylthio, an arylalkylthioalkyl, an alkylthioalkyl, a cycloalkenyl, an heterocyclicalkyl, an alkoxy  $R_{50}O-$ , a haloalkoxy, an amino, ~~an alkylamino~~  $R_{50}NH-$ , ~~a dialkylamino~~  $R_{52}R_{53}N-$ , ~~an arylamino~~  $R_{55}NH-$ , ~~a diarylamino~~  $R_{55}R_{60}N-$ , ~~an alkylarylamine~~  $R_{52}R_{55}N-$ , an alkoxyhaloalkyl, a sulfonic acid  $-S(O)_2OR_{76}$ , ~~a sulfonic ester~~  $-S(O)_2OR_{58}$ , an alkylsulfonic acid, an arylsulfonic acid, an arylalkoxy, ~~an alkylthio~~  $R_{50}S-$ , ~~an arylthio~~  $R_{55}S-$ , ~~a cyano~~  $-CN$ , an aminoalkyl, an aminoaryl, an aryl, an arylalkyl, an alkylaryl, ~~a carboxamide~~  $-C(O)N(R_{51})(R_{57})$ , a alkylcarboxamido, an arylcarboxamido, ~~an amidyl~~  $R_{51}C(O)N(R_{57})-$ , ~~a carboxyl~~  $-C(O)OR_{76}$ , ~~a carbamoyl~~  $-O-C(O)N(R_{51})(R_{57})$ , an alkylcarboxylic acid, an arylcarboxylic acid, ~~an alkylcarbonyl~~  $R_{52}-C(O)-$ , ~~an arylcarbonyl~~  $R_{55}-C(O)-$ , ~~an ester~~  $R_{51}C(O)R_{76}-$ , ~~a carboxylic ester~~  $-C(O)OR_{58}$ , an alkylcarboxylic ester, an arylcarboxylic ester, ~~a sulfonamide~~  $-S(O)_2-N(R_{51})(R_{57})$ , an alkylsulfonamido, an arylsulfonamido, ~~an alkylsulfonyl~~  $R_{50}-S(O)_2-$ , ~~an alkylsulfonyloxy~~  $R_{50}-S(O)_2-O-$ , ~~an arylsulfonyl~~  $R_{55}-S(O)_2-$ , ~~arylsulphonyloxy~~  $R_{55}-S(O)_2-O-$ , ~~a sulfonic ester~~  $-S(O)_2OR_{58}$ , an alkyl ester, an aryl ester, ~~a urea~~  $-N(R_{59})-C(O)N(R_{51})(R_{57})$ , ~~a phosphoryl~~  $-P(R_{70})(R_{71})(R_{72})$ , ~~a nitro~~  $-NO_2$  or K; or  $R_e$  and  $R_f$  taken together with the carbons to which they are attached form ~~a carbonyl~~  $-C(O)-$ , ~~a methanthial~~  $-C(S)-$ , a heterocyclic ring, a cycloalkyl group, an aryl group, ~~an oxime~~  $=N-OR_{81}$ , ~~a hydrazone~~  $=N-N(R_{81})(R'_{81})$  or a bridged cycloalkyl group;

$R_{50}$  is an alkyl group;

$R_{51}$ ,  $R_{57}$ , and  $R_{59}$  are each independently a hydrogen atom, an alkyl group, an aryl group or an arylheterocyclic ring, or  $R_{51}$  and  $R_{57}$  taken together are a heterocyclic ring, a cycloalkyl group or a bridged cycloalkyl group;

$R_{52}$  and  $R_{53}$  are each independently an alkyl group;

$R_{54}$  is a cycloalkyl group or a bridged cycloalkyl group;

$R_{55}$  and  $R_{60}$  are each independently an aryl group;

$R_{58}$  is an alkyl group, an aryl group, or an aryl heterocyclic ring;

$R_{70}$  is a lone pair of electrons, thial or oxo;

$R_{71}$  and  $R_{72}$  are each independently a covalent bond, a hydrogen, a lower alkyl, an alkoxy, an alkylamino, a hydroxy, an oxy or an aryl;

$R_{76}$  is a hydrogen, an organic cation or an inorganic cation;

R<sub>76</sub> is oxygen or sulfur;

R<sub>81</sub> is a hydrogen, an alkyl group, an aryl group, an alkylsulfonyl group, an arylsulfonyl group, a carboxylic ester, an alkylcarbonyl group, an arylcarbonyl group, a carboxamido group, an alkoxyalkyl group or an alkoxyaryl group;

R'<sub>81</sub> is independently selected from R<sub>81</sub>;

R<sub>a</sub> is a lone pair of electrons, a hydrogen or an alkyl group;

R<sub>i</sub> is a hydrogen, an alkyl, an aryl, an alkylcarboxylic acid, an arylcarboxylic acid, an alkylcarboxylic ester, an arylcarboxylic ester, an alkylcarboxamido, an arylcarboxamido, an alkylaryl, an alkylsulfinyl, an alkylsulfonyl, an alkylsulfonyloxy, an arylsulfinyl, an arylsulfonyl, arylsulphonyloxy, a sulfonamido, a carboxamido, a carboxylic ester, an aminoalkyl, an aminoaryl, -CH<sub>2</sub>-C(U<sub>3</sub>-V<sub>3</sub>)(R<sub>e</sub>)(R<sub>f</sub>), a bond to an adjacent atom creating a double bond to that atom, -(N<sub>2</sub>O<sub>2</sub>)<sup>-</sup> •M<sub>1</sub><sup>+</sup>, wherein M<sub>1</sub><sup>+</sup> is an organic or inorganic cation; and

with the proviso that the compounds of Formula (I) must contain least one of a nitrate or a thionitrate group.

2. (Currently Amended) A pharmaceutical composition comprising the compound of claim 1 and a pharmaceutically acceptable carrier.

3. (Cancelled)

4. (Previously Presented) The compound of claim 1, wherein K is:

- (1) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-T-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-ONO<sub>2</sub>;
- (2) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-V-B-T-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-ONO<sub>2</sub>;
- (3) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-T-C(O)-(CR<sub>4</sub>R<sub>4</sub>')<sub>k</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (4) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-C(Z)-(CH<sub>2</sub>)<sub>q</sub>-T-(CR<sub>4</sub>R<sub>4</sub>')<sub>q</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (5) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-T-(CH<sub>2</sub>)<sub>q</sub>-V-(CR<sub>4</sub>R<sub>4</sub>')<sub>q</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (6) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>p</sub>-V-(CH<sub>2</sub>)<sub>q</sub>-V-(CR<sub>4</sub>R<sub>4</sub>')<sub>q</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (7) -Y-(CR<sub>4</sub>R<sub>4</sub>')<sub>k</sub>-(W)<sub>q</sub>-(CR<sub>4</sub>R<sub>4</sub>')<sub>k</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (8) -NR<sub>j</sub>-O-(CH<sub>2</sub>)<sub>k</sub>-V-(CR<sub>4</sub>R<sub>4</sub>')<sub>q</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (9) -NR<sub>j</sub>-O-(CH<sub>2</sub>)<sub>k</sub>-(W)<sub>q</sub>-(CR<sub>4</sub>R<sub>4</sub>')<sub>q</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (10) -O-NR<sub>j</sub>-(CH<sub>2</sub>)<sub>k</sub>-(W)<sub>q</sub>-(CR<sub>4</sub>R<sub>4</sub>')<sub>q</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;
- (11) -Y-(CH<sub>2</sub>)<sub>k</sub>-(W)<sub>q</sub>-(CH<sub>2</sub>)<sub>k</sub>-V-(CR<sub>4</sub>R<sub>4</sub>')<sub>k</sub>-Q'-(CR<sub>4</sub>R<sub>4</sub>')<sub>k</sub>-(CH<sub>2</sub>)-ONO<sub>2</sub>;

- (12)  $-Y-(CR_4R_4')_p-V-(CH_2)_k-(W)_q-(CR_4R_4')_q-(CH_2)-ONO_2$ ;
- (13)  $-O-NR_j-(CH_2)_k-V-(CR_4R_4')_q-(CH_2)-ONO_2$ ;
- (14)  $-Y-(CR_4R_4')_k-Q'-(CR_4R_4')_k-V-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (15)  $-Y-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(W)_q-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (16)  $-Y-(CR_4R_4')_p-T-(CR_4R_4')_p-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (17)  $-Y-(CR_4R_4')_q-C(Z)-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (18)  $-Y-(CR_4R_4')_p-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (19)  $-Y-(CR_4R_4')_q-P(O)MM'$ ;
- (20)  $-Y-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (21)  $-Y-(CR_4R_4')_k-Q'-(CR_4R_4')_k-T-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (22)  $-Y-(CR_4R_4')_q-(W)_q-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (23)  $-Y-(CR_4R_4')_q-V-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (24)  $-Y-(CR_4R_4')_p-(T)_o-(W)_q-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (25)  $-Y-(CR_4R_4')_p-(W)_q-(T)_o-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (26)  $-Y-(CR_4R_4')_q-C(Z)-V-(CR_4R_4')_q-(CH_2)-ONO_2$ ;
- (27)  $-Y-(CR_4R_4')_k-C(R_4)(ONO_2)-(CR_4R_4')_q-(T)_o-(W)_q-(T)_o-(CR_4R_4')_k-R_5$ ;
- (28)  $-Y-(CR_4R_4')_k-V-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (29)  $-Y-(CR_4R_4')_q-C(Z)-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (30)  $-Y-(CR_4R_4')_p-V-(CR_4R_4')_p-(CH_2)-ONO_2$ ;
- (31)  $-Y-(CR_4R_4')_p-V-(CH_2)_q-(T)_o-(CR_4R_4')_q-(CH_2)-ONO_2$ ;
- (32)  $-Y-(CR_4R_4')_p-(T)_o-Q'-(T)_o-(CR_4R_4')_q-(CH_2)-ONO_2$ ;
- (33)  $-Y-(CR_4R_4')_q-C(Z)-(CR_4R_4')_q-V-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (34)  $-Y-(CR_4R_4')_q-C(Z)-(CR_4R_4')_q-(W)_q-(CR_4R_4')_k-Q'-(CR_4R_4')_k-(CH_2)-ONO_2$ ;
- (35)  $-NR_j-O-(CH_2)_k-V-(CR_4R_4')_k-Q'-(CH_2)-ONO_2$ ;
- (36)  $-NR_j-O-(CH_2)_k-(W)_q-(CR_4R_4')_k-Q'-(CH_2)-ONO_2$ ;
- (37)  $-O-NR_j-(CH_2)_k-(W)_q-(CR_4R_4')_k-Q'-(CH_2)-ONO_2$ ;
- (38)  $-O-NR_j-(CH_2)_k-V-(CR_4R_4')_k-Q'-(CH_2)-ONO_2$ ;
- (39)  $-NR_j-NR_j-(CR_4R_4')_p-(W)_q-(T)_o-(CR_4R_4')_k-(CH_2)-ONO_2$ ; or
- (40)  $-Y-(CR_4R_4')_k-Q'-(CR_4R_4')_k-ONO_2$ ; or

(41)  $-Y-(CR_4R'_4)_k-V-(CR_4R'_4)_k-Q-(CR_4R'_4)_k-ONO_2$ ;

$R_4$  and  $R'_4$  at each occurrence are independently a hydrogen, lower alkyl group, -OH, -CH<sub>2</sub>OH, -ONO<sub>2</sub>, -NO<sub>2</sub> or -CH<sub>2</sub>ONO<sub>2</sub>;

V is -C(O)-T-, -T-C(O)-, -T-C(O)-T or T-C(O)-C(O)-T;

W is a covalent bond or a carbonyl group;

T at each occurrence is independently an oxygen, or NR<sub>j</sub>;

R<sub>j</sub> is a hydrogen, an alkyl group, an aryl group, a heterocyclic ring, an alkylcarbonyl group, an alkylaryl group, an alkylsulfinyl group, an alkylsulfonyl group, an arylsulfinyl group, an arylsulfonyl group, a sulfonamido group, a N-alkylsulfonamido group, a N,N-diarylsulfonamido group, a N-arylsulfonamido group, a N-alkyl-N-arylsulfonamido group, a carboxamido group or a hydroxyl group;

p at each occurrence is independently an integer from 1 to 6;

q at each occurrence is independently an integer from 1 to 3;

o at each occurrence is independently an integer from 0 to 2;

k at each occurrence is independently an integer from 0 to 4;

Y is independently a covalent bond, a carbonyl, an oxygen, -S(O)<sub>o</sub>- or -NR<sub>j</sub>;

B is either phenyl or (CH<sub>2</sub>)<sub>o</sub>;

Q' is a cycloalkyl group, a heterocyclic ring or an aryl group;

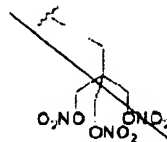
Z is (=O), (=N-OR<sub>5</sub>), (=N-NR<sub>5</sub>R'<sub>5</sub>) or (=CR<sub>5</sub>R'<sub>5</sub>);

M and M' are each independently -O<sup>-</sup> H<sub>3</sub>N<sup>+</sup>-(CR<sub>4</sub>R'<sub>4</sub>)<sub>q</sub>-CH<sub>2</sub>ONO<sub>2</sub> or -T-(CR<sub>4</sub>R'<sub>4</sub>)<sub>k</sub>-CH<sub>2</sub>ONO<sub>2</sub>; and

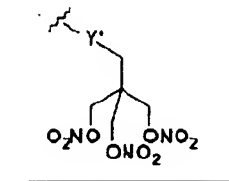
R<sub>5</sub> and R'<sub>5</sub> at each occurrence are independently a hydrogen, a hydroxyl group, an alkyl group, an aryl group, an alkylsulfonyl group, an arylsulfonyl group, a carboxylic ester, an alkylcarbonyl group, an arylcarbonyl group, a carboxamido group, an alkoxyalkyl group, an alkoxyaryl group, a cycloalkyl group or a heterocyclic ring.

5. (Currently amended) The compound of claim 1, wherein K is:

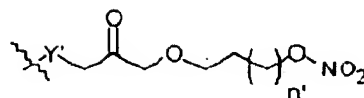
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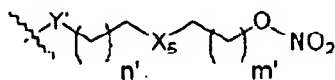
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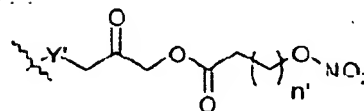
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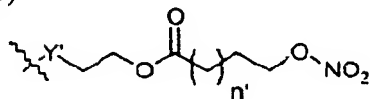
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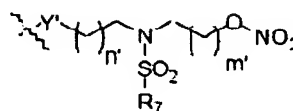
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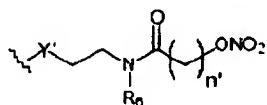
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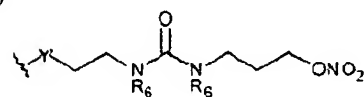
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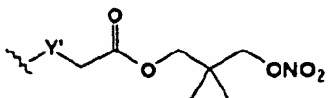
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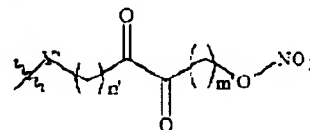
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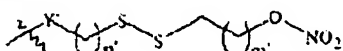
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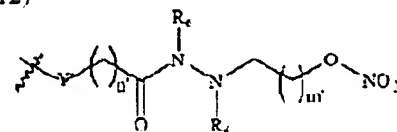
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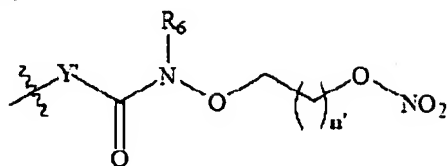
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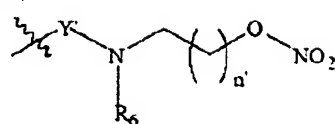
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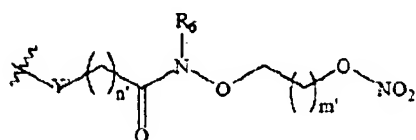
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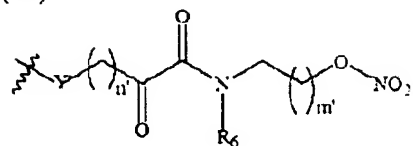
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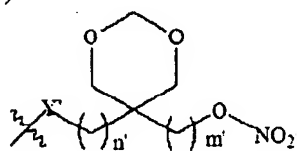
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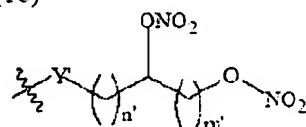
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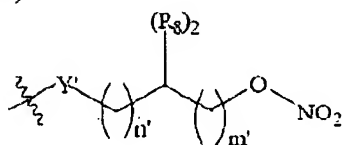
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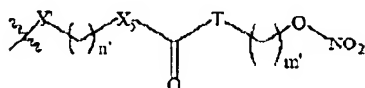
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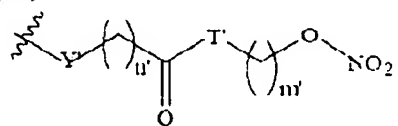
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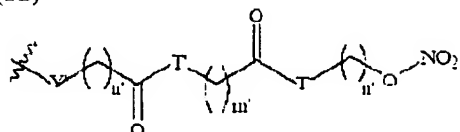
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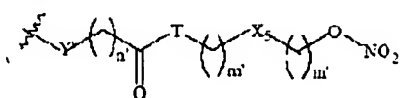
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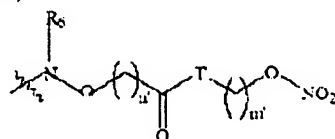
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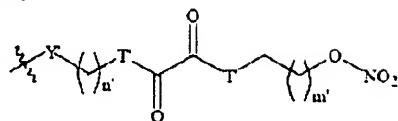
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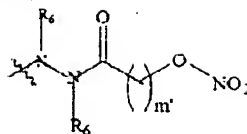
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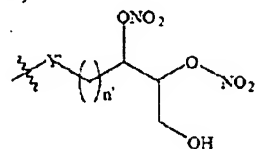
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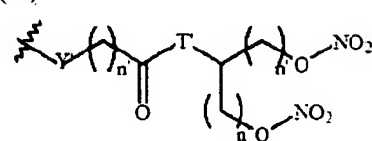
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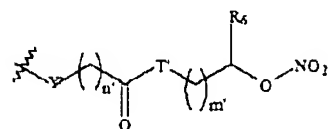
(27)



(28)



(29)



wherein:

Y' a covalent bond, a carbonyl, an oxygen, or -NR<sub>6</sub>;

T' is oxygen, or NR<sub>6</sub>;

X<sub>5</sub> is oxygen, or NR<sub>6</sub>;

R<sub>6</sub> is a hydrogen, a lower alkyl group, an aryl group;

R<sub>7</sub> is a lower alkyl group or an aryl group;

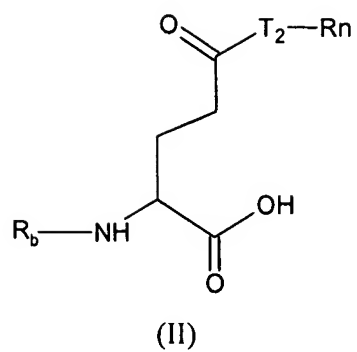
R<sub>8</sub> at each occurrence is independently [[is]] a hydrogen, a hydroxyl group, a lower alkyl group, an aryl group, -NO<sub>2</sub>, -CH<sub>2</sub>-ONO<sub>2</sub> or -CH<sub>2</sub>-OH;

n' and m' are each independently an integer from 0 to 10.

6. (Currently Amended) The compound of claim 1, wherein the compound of Formula (I) is a compound of Formula (II), or a pharmaceutically acceptable salt thereof,

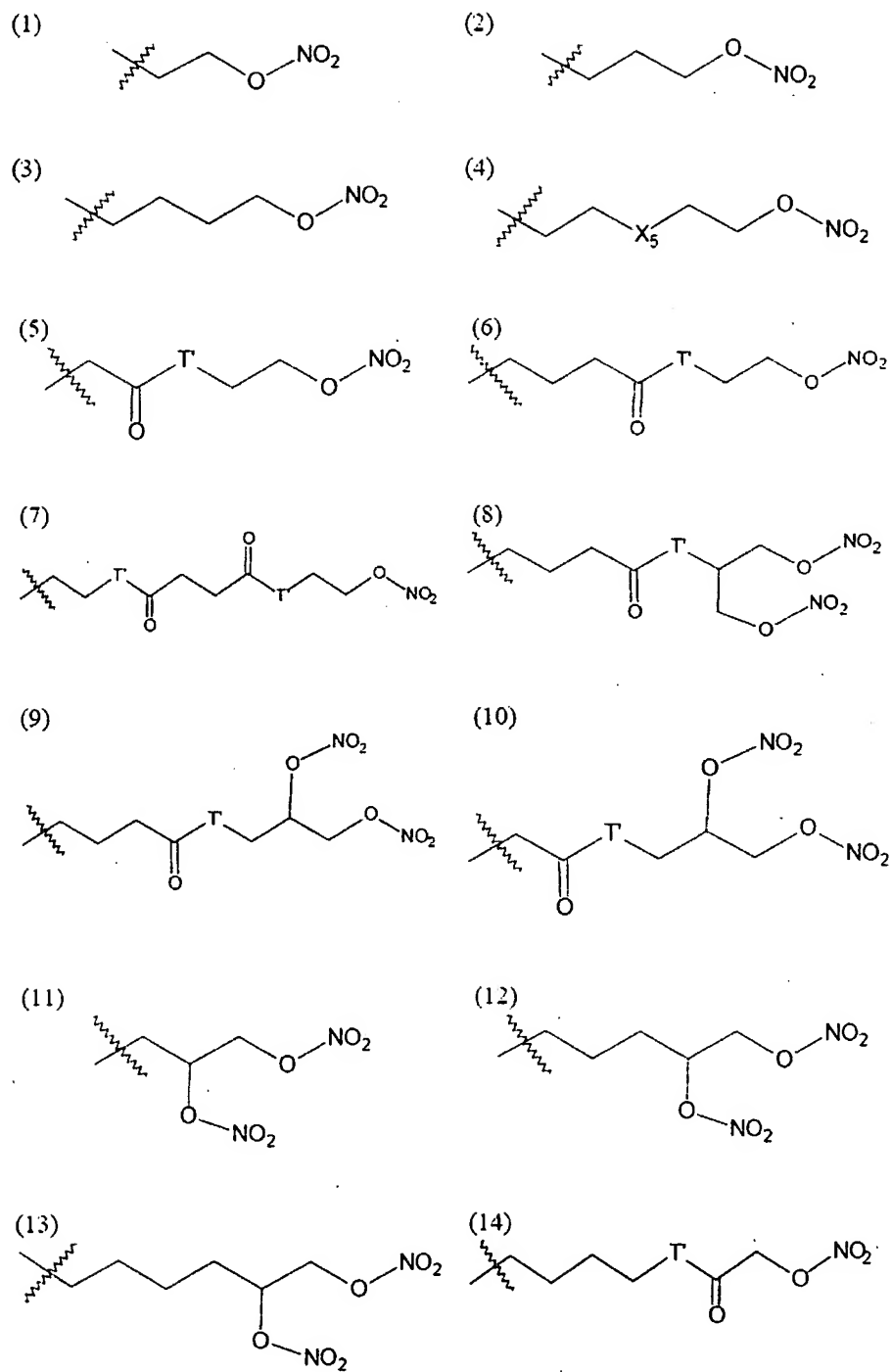
wherein the compound of Formula (II) is:



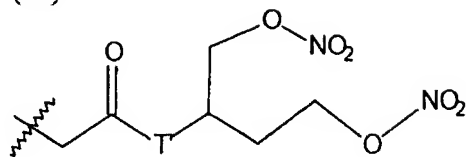


wherein

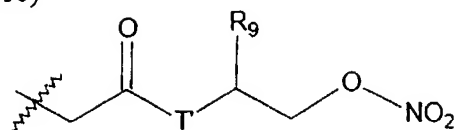
$\text{R}_n$  is



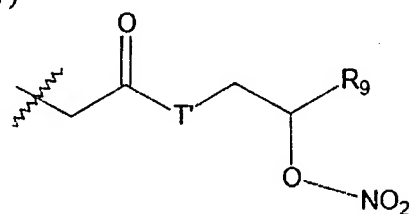
(15)



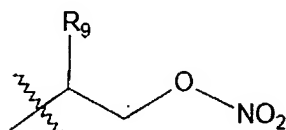
(16)



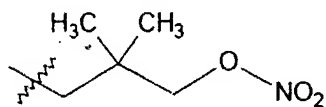
(17)



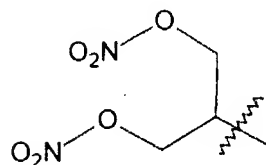
(18)



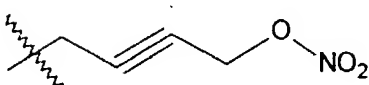
(19)



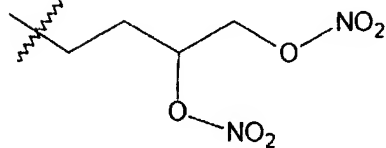
(20)



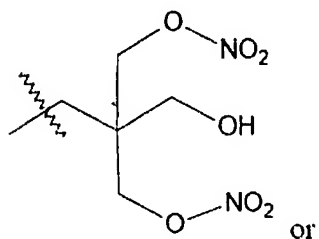
(21)



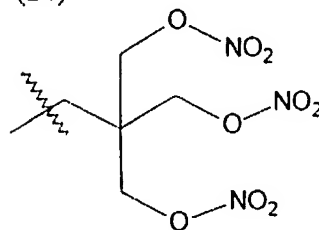
(22)



(23)



(24)



R<sub>9</sub> is a lower alkyl group or an aryl group;  
T<sub>2</sub> is oxygen, sulfur, NR<sub>6</sub> or N(R<sub>10</sub>)(R<sub>11</sub>);  
R<sub>10</sub> and R<sub>11</sub> taken together are a heterocyclic ring; and  
X<sub>5</sub>, R<sub>b</sub> and R<sub>6</sub> are as defined herein.

7– 26 (Cancelled).

27. (Previously Presented) A compound selected from the group consisting of:  
4-{{(2R)-2,3-bis(nitrooxy)propyl}oxycarbonyl}(2S)-2-aminobutanoic acid, hydrochloride salt;  
(2S)-2-amino-4-{[2-(nitrooxy)ethyl]oxycarbonyl}butanoic acid, 2,2,2-trifluoroacetic acid;  
(2S)-2-amino-4-[(2-(nitrooxy)ethyl)sulfonyl]ethyl oxycarbonyl butanoic acid, hydrochloride salt;  
(2S)-4-{{(2S)-2,3-bis(nitrooxy)propyl}oxycarbonyl}-2-aminobutanoic acid, hydrochloride salt;  
(2S)-2-amino-4-{N-[3-(nitrooxy)propyl]carbamoyl}butanoic acid, hydrochloride salt;  
(2S)-2-amino-4-{N-[2,2-dimethyl-3-(nitrooxy)propyl]carbamoyl} butanoic acid, hydrochloride salt;  
(2S)-2-amino-4-{[3-(nitrooxy)propyl]oxycarbonyl}butanoic acid, hydrochloride salt;  
(2S)-2-amino-4-(N-{2-[2-(nitrooxy)ethoxy]ethyl} carbamoyl)butanoic acid, hydrochloride salt;  
(2S)-2-amino-4-({2-(nitrooxy)-1-[(nitrooxy)methyl]ethyl} oxycarbonyl)butanoic acid,  
hydrochloride salt;  
(2S)-2-amino-4-{{[2,2-dimethyl-3-(nitrooxy)propyl]oxycarbonyl} butanoic acid, hydrochloride salt;  
tert-butyl (2S)-2-[(tert-butoxy)carbonylamino]-4-(N-{2-(nitrooxy)-1-  
[(nitrooxy)methyl]ethyl} carbamoyl)butanoate;  
(2S)-2-amino-4-{{[4-(nitrooxy)but-2-ynyl]oxycarbonyl}butanoic acid, hydrochloride salt  
(2S)-4-{N-[(2S)-2,3-bis(nitrooxy)propyl]carbamoyl}-2-aminobutanoic acid, hydrochloride salt;  
4-{{(3R)-3,4-bis(nitrooxy)butyl}oxycarbonyl}(2S)-2-aminobutanoic acid, hydrochloride salt;  
(2S)-2-amino-4-({2,2-bis[(nitrooxy)methyl]-3-hydroxypropyl} oxycarbonyl)butanoic acid,  
hydrochloride salt;  
(2S)-2-amino-4-({2,2-bis[(nitrooxy)methyl]-3-(nitrooxy)propyl} oxycarbonyl)butanoic acid,  
hydrochloride salt;  
(2S)-2-amino-4-{{[4,5-bis(nitrooxy)pentyl]oxycarbonyl}butanoic acid, hydrochloride salt.